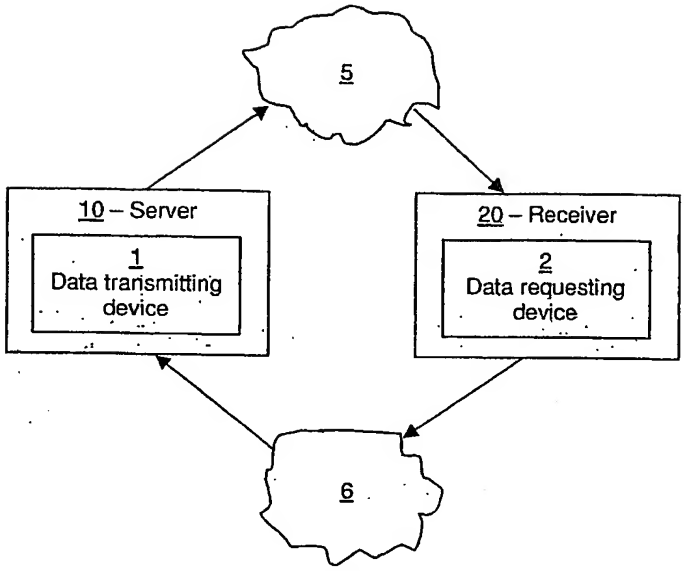
5
10 – Server
1
Data transmitting device
20 – Receiver
2
Data requesting device
6

FIG. 1

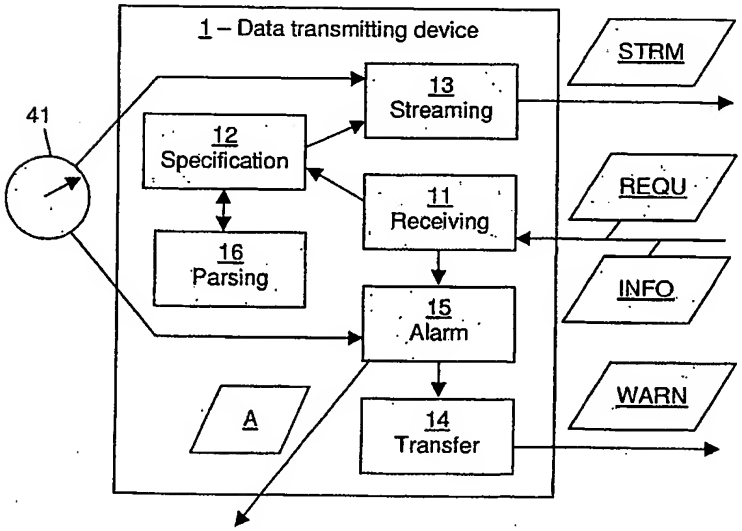
1 – Data transmitting device
41
13
Streaming
12
Specification
11
Receiving
16
Parsing
15
Alarm
A
14
Transfer
STRM
REQU
INFO
WARN

FIG. 2

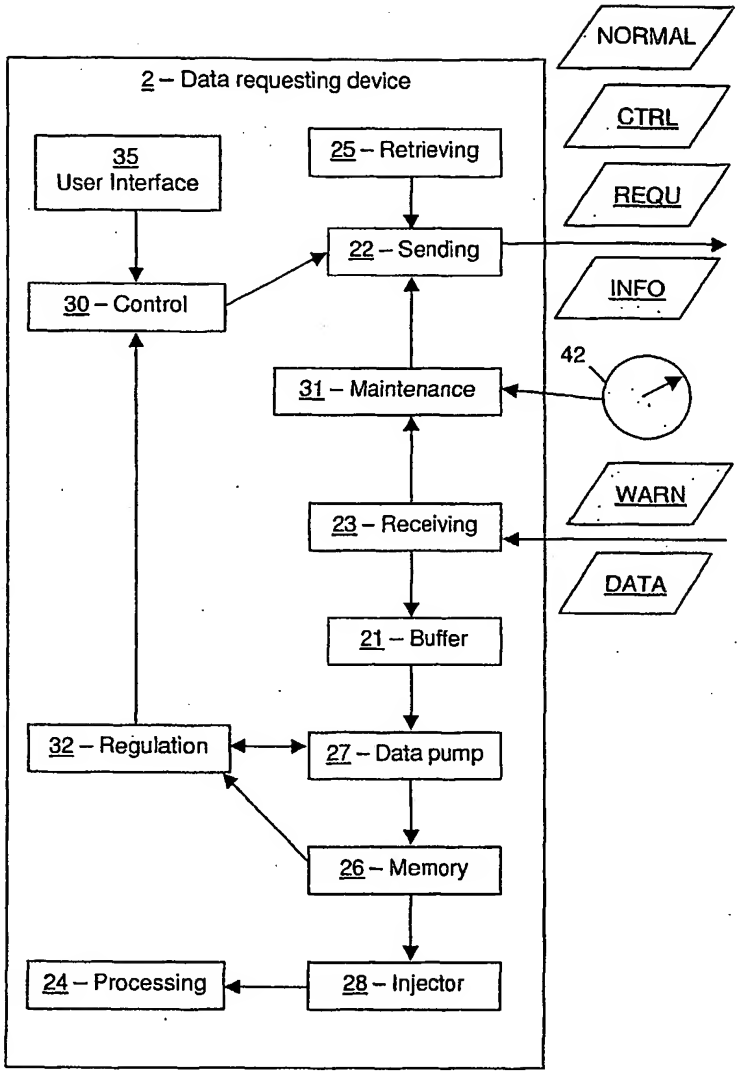
2 – Data requesting device
35 User Interface
25 – Retrieving
22 – Sending
30 – Control
31 – Maintenance
23 – Receiving
21 – Buffer
32 – Regulation
27 – Data pump
26 – Memory
24 – Processing
28 – Injector
NORMAL
CTRL
REQU
INFO
42
WARN
DATA

FIG. 3

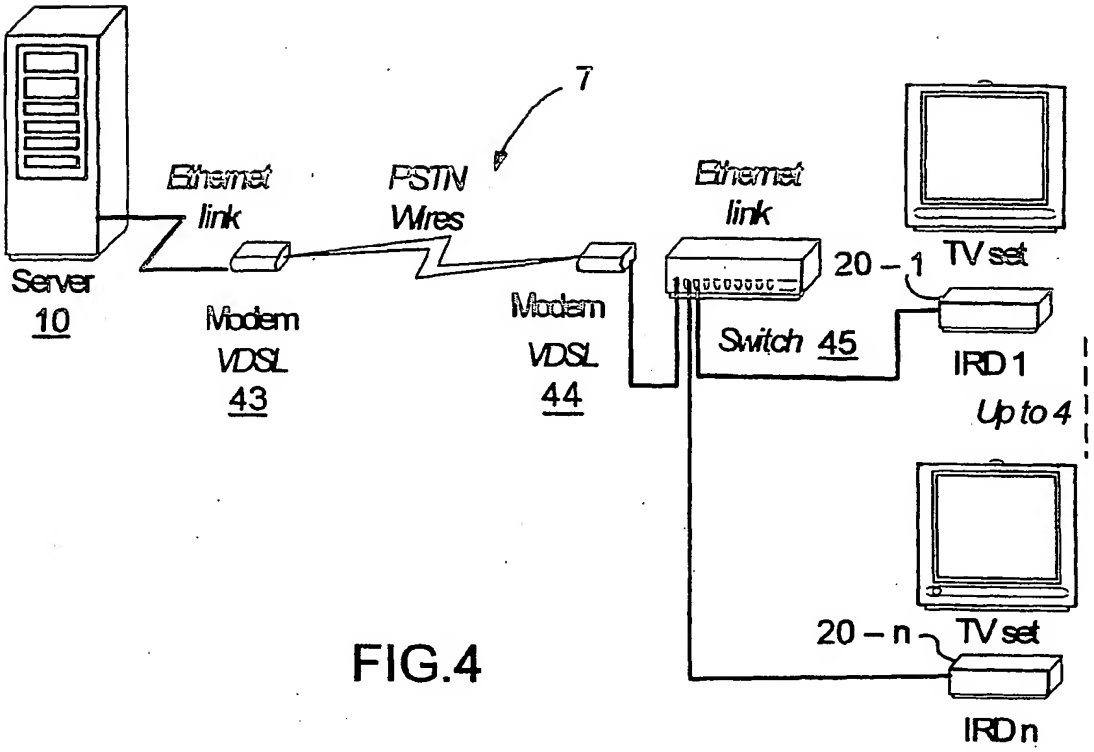
7
Ethernet link
PSTN Wires
Ethernet link
Server 10
Modem VDSL 43
Modem VDSL 44
Switch 45
20 – 1
TV set
IRD 1
Up to 4
20 – n
TV set
IRD n

FIG.4

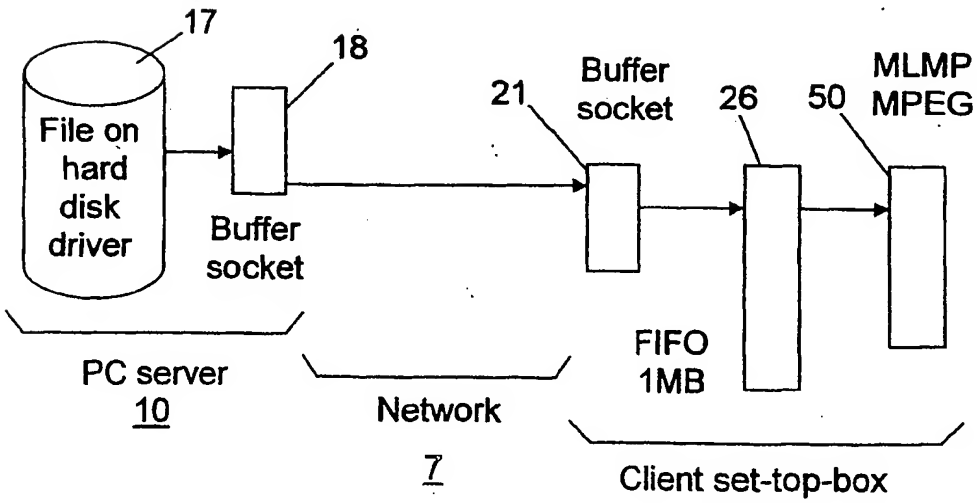
17
18
21
Buffer socket
26
50
MLMP MPEG
File on hard disk driver
Buffer socket
FIFO 1MB
PC server 10
Network 7
Client set-top-box (IRD) 20

FIG.5

4/5

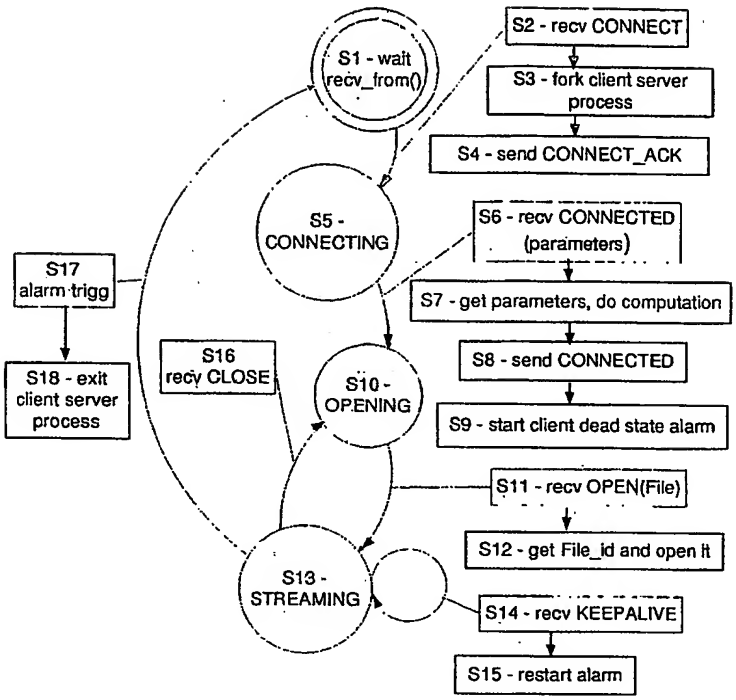
S1 - wait recv_from()
S2 - recv CONNECT
S3 - fork client server process
S4 - send CONNECT_ACK
S5 - CONNECTING
S6 - recv CONNECTED (parameters)
S7 - get parameters, do computation
S8 - send CONNECTED
S9 - start client dead state alarm
S10 - OPENING
S11 - recv OPEN(File)
S12 - get File_id and open it
S13 - STREAMING
S14 - recv KEEPALIVE
S15 - restart alarm
S16 recv CLOSE
S17 alarm trigg
S18 - exit client server process

FIG. 6

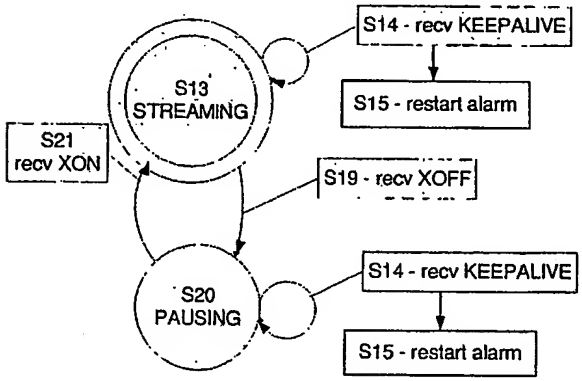
S13 STREAMING
S14 - recv KEEPALIVE
S15 - restart alarm
S21 recv XON
S19 - recv XOFF
S20 PAUSING
S14 - recv KEEPALIVE
S15 - restart alarm

FIG. 7

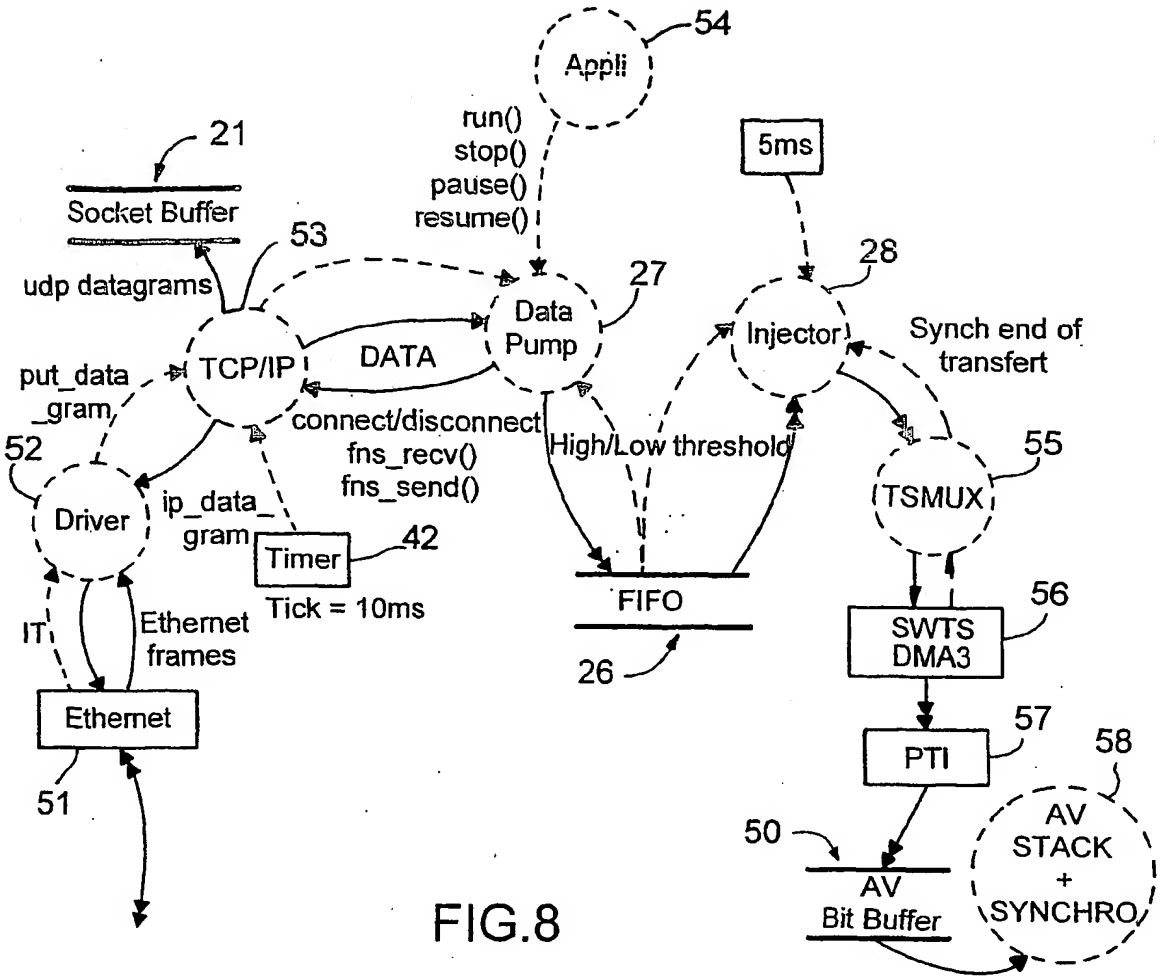
Appli
54
run()
stop()
pause()
resume()
5ms
21
Socket Buffer
53
udp datagrams
Data
Pump
27
28
Injector
Synch end of
transfert
put_data
_gram
TCP/IP
DATA
connect/disconnect
fns_recv()
fns_send()
High/Low threshold
52
Driver
ip_data_
gram
Timer
42
Tick = 10ms
TSMUX
55
FIFO
26
56
SWTS
DMA3
IT
Ethernet
frames
Ethernet
57
PTI
58
AV
STACK
+
SYNCHRO
50
AV
Bit Buffer
51

FIG.8

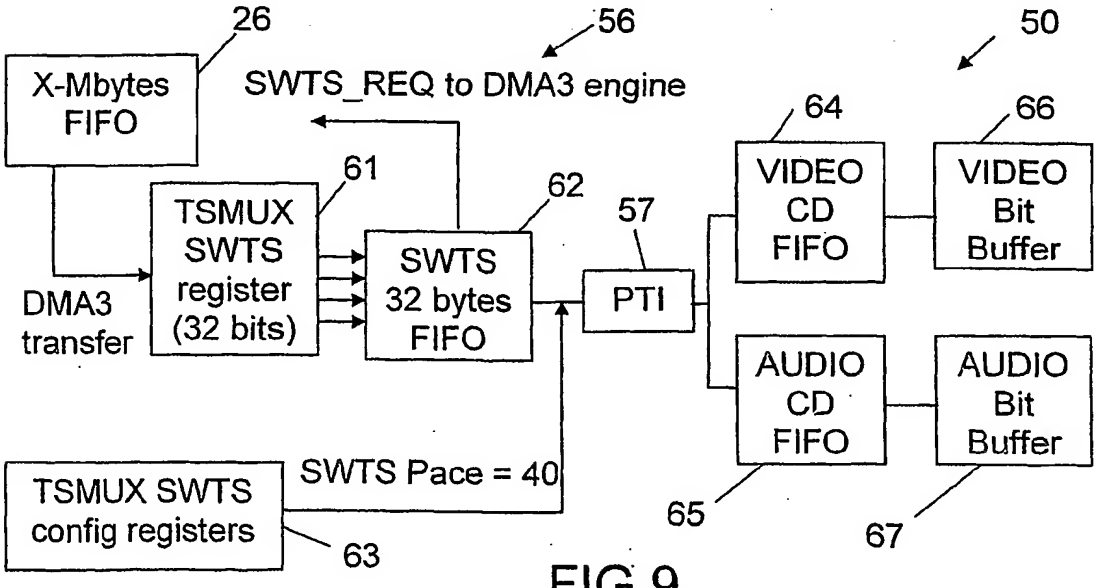
26
X-Mbytes
FIFO
56
SWTS_REQ to DMA3 engine
50
64
66
VIDEO
CD
FIFO
VIDEO
Bit
Buffer
61
62
57
TSMUX
SWTS
register
(32 bits)
SWTS
32 bytes
FIFO
PTI
DMA3
transfer
AUDIO
CD
FIFO
AUDIO
Bit
Buffer
SWTS Pace = 40
TSMUX SWTS
config registers
63
65
67

FIG.9